# PHASE 1 NEVADA WASTEWATER TREATMENT FACILITY IMPROVEMENTS

## CITY OF NEVADA

### NEVADA, IOWA

### 2020

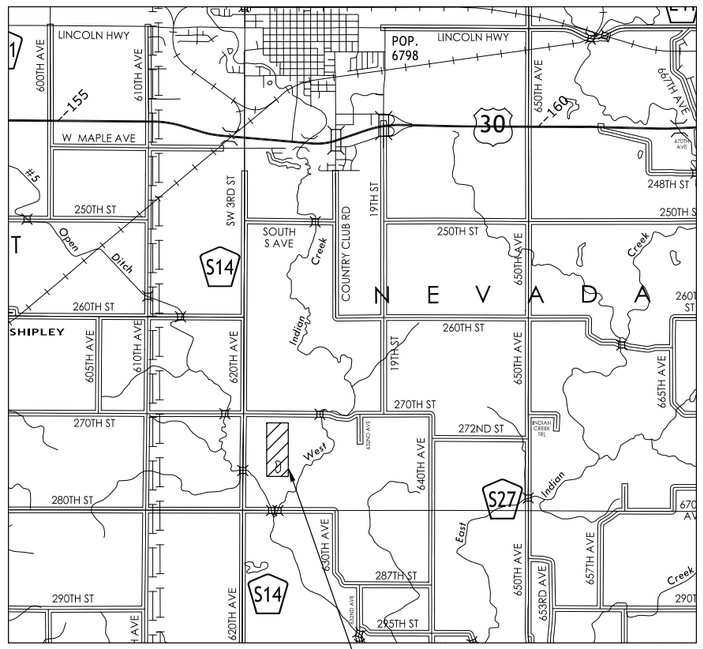
## CERTIFICATION

LICENSED PROFESSIONAL ENGINEER
MICHAEL J. ROTH
18424
IOWA

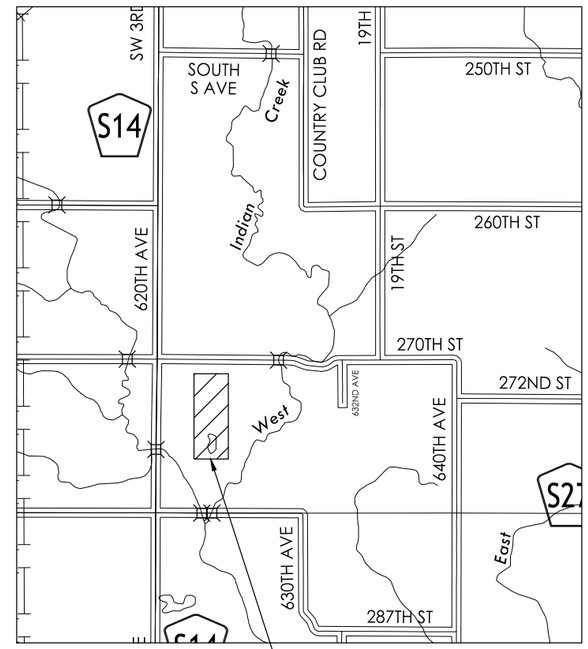
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

MICHAEL J. ROTH, P.E. DATE
License Number: 18424
My license renewal date is December 31, 2020.
Pages or sheets covered by this seal:
G SHEETS,

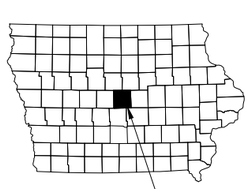
## VICINITY MAP




## LOCATION MAP




| Sheet Number | Sheet Title |
|---|---|
| GENERAL | |
| G.01 | COVER SHEET |
| G.02 | ABBREVIATIONS, LEGEND, AND SHEET INDEX |
| G.03 | GENERAL NOTES, ALIGNMENTS, AND CONTROL |
| G.04 | QUANTITIES AND ERI |
| CIVIL SITEWORK | |
| C.01 | OVERALL SITE PLAN |
| C.02 | EROSION CONTROL PLAN |
| C.03 | EROSION CONTROL NOTES |
| C.04 | GRADING PLAN |
| C.05 | INFLUENT TRUNK SEWER PLAN AND PROFILE |
| C.06 | INFLUENT TRUNK SEWER PLAN AND PROFILE |
| C.07 | INFLUENT TRUNK SEWER PLAN AND PROFILE |
| C.08 | EFFLUENT OUTFALL PLAN AND PROFILE |
| C.09 | ENTRANCE DRIVE GRADING PLAN AND PROFILE |
| C.10 | DRAINAGE CULVERTS PLAN AND PROFILE |
| C.11 | SECTIONS AND DETAILS |





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NEVADA WWTF IMPROVEMENTS
CITY OF NEVADA
NEVADA, IOWA

GENERAL
COVER SHEET

SHEET NO.
G.01

Xrefs: xgt-1-dh01; story-co

ABBREVIATIONS

| | |
|---|---|
| @ | AT |
| A | AMPS, AMPERES |
| AAV | AUTOMATIC AIR VENT |
| AB | ANCHOR BOLT |
| AC | ALTERNATING CURRENT |
| ACC | ASPHALTIC CEMENT CONCRETE |
| ACT | ACOUSTIC CEILING TILE |
| ACU | AIR CONDITIONING UNIT |
| AD | ACCESS DOOR, AIR DRYER |
| ADP | AUTO DIALER PNL |
| ADH | ADHESIVE |
| A/E | ARCHITECTURAL / ENGINEERING FIRM |
| AF | AMPERE FRAME |
| AFD | ADJUSTABLE FREQUENCY DRIVE |
| AFF | ABOVE FINISHED FLOOR |
| AFUE | ANNUAL FUEL UTILIZATION EFFICIENCY |
| AFG | ABOVE FINISHED GRADE |
| AH | ACCESS HATCH |
| AHU | AIR HANDLING UNIT |
| AIC | AMPERES INTERRUPTING CAPACITY |
| ALT | ALTERNATE |
| ALUM, AL | ALUMINUM |
| AMB | AMBIENT |
| ANCH | ANCHOR |
| ANOD | ANODIZED |
| ANSI | AMERICAN NATIONAL STANDARDS INSTITUTE |
| ARCH | ARCHITECT, ARCHITECTURAL |
| AS | AIR SEPARATOR |
| ASHRAE | AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS |
| ASTM | AMERICAN SOCIETY FOR TESTING AND MATERIALS |
| AT | AMPERE TRIP |
| ATS | AUTOMATIC TRANSFER SWITCH |
| AVG | AVERAGE |
| AWG | AMERICAN WIRE GAGE |
| B/ | BOTTOM OF, BACK OF |
| B/B | BACK TO BACK (OF CURBS) |
| BBH | BASEBOARD HEATER |
| BC | BARE COPPER |
| B/C | BACK OF CURB |
| BD BM | BOND BEAM |
| BDD | BACKDRAFT DAMPER |
| BF | BLIND FLANGE |
| BFP | BACKFLOW PREVENTOR, BELT FILTER PRESS |
| BFV | BUTTERFLY VALVE |
| BHP | BRAKE HORSEPOWER |
| BLDG | BUILDING |
| BLK | BLOCK |
| BOD | BOTTOM OF DUCT, BIOLOGICAL OXYGEN DEMAND |
| BOP | BOTTOM OF PIPE |
| BM | BENCH MARKER |
| BOT | BOTTOM |
| BOW | BOTTOM OF WALL |
| BRG | BEARING |
| BRK | BRICK |
| BTU | BRITISH THERMAL UNIT |
| BTUH | BTU PER HOUR |
| BTWN | BETWEEN |
| BV | BALL VALVE |
| C | CONDUIT, CELSIUS, C STRUCTURAL SHAPE |
| CAP | CAPACITY |
| CB | CIRCUIT BREAKER |
| CC | COILING COIL, CONSTRUCTION CASTING |
| CD | CEILING DIFFUSER |
| CFH | CUBIC FEET PER HOUR |
| CFM | CUBIC FEET PER MINUTE |
| CH | CONCRETE HARDENER |
| CI | CAST IRON |
| CIP | CAST IN PLACE, CLEAN IN PLACE, CAST IRON PIPE |
| CJ | CONTROL OR CONSTRUCTION JOINT |
| CKT | CIRCUIT |
| CL | CENTER LINE |
| CLG | CEILING, COOLING |
| CLR | CLEAR, CLEARANCE |
| CMPR | COMPRESSOR |
| CMU | CONCRETE MASONRY UNIT |
| CND | CONDENSATE |
| CO | CLEAN OUT |
| COL | COLUMN |
| COMP | COMPRESSION |
| CONC | CONCRETE |
| COND | CONDENSER, CONDUIT |
| CONT | CONTINUE (OUS) |
| CONTR | CONTRACTOR |
| COORD | COORDINATE |
| COP | COEFFICIENT OF PERFORMANCE |
| CORP | CORPORATION |
| CP | CORNER POINT |
| CPT | CONTROL POWER TRANSFORMER, CARPET |
| CPVC | CHLORINATED POLYVINYL CHLORIDE |
| CRS | COURSES |
| CT | CURRENT TRANSFORMER |
| CTRS | CENTERS |
| CU | CONDENSING UNIT, COPPER |
| CU FT | CUBIC FEET |
| CU IN | CUBIC INCH |
| CW | CHILLED WATER |
| CWP | CONDENSER WATER PUMP |
| CY | CUBIC YARD |
| D | DECANT |
| DB | DRY BULB TEMPERATURE, DIRECT BURIED |
| DBL | DOUBLE |
| DC | DIRECT CURRENT |
| DEG | DEGREE |
| DEMO | DEMOLITION |
| DEPT | DEPARTMENT |
| DG | DOOR GRILLE |
| DGS | DIGESTER SLUDGE |
| DI | DUCTILE IRON |
| DIA,ø | DIAMETER |
| DIM | DIMENSION |
| DIP | DUCTILE IRON PIPE |
| DL | DEAD LOAD |
| DN | DOWN |
| DP | DEWPOINT TEMPERATURE |
| DPR | DAMPER |
| DRN | DRAIN |
| DS | DOWN SPOUT |
| DTL | DETAIL(S) |
| DWG | DRAWING(S) |
| DWL | DOWEL |
| DX | DIRECT EXPANSION |
| E | EQUIPMENT, EASTING |
| EA | EACH, EXHAUST AIR |
| EAT | ENTERING AIR TEMPERATURE |
| ECC | ECCENTRIC |
| ECP | ENVIRONMENTAL CONTROL PANEL |
| EDH | ELECTRIC DUCT HEATER |
| EER | ENERGY EFFICIENCY RATIO |
| EF | EXHAUST FAN, EACH FACE |
| EFF | EFFICIENCY, EFFLUENT |
| EG | EXHAUST GRILLE, EQUIPMENT GENERATOR |
| EJ | EXPANSION JOINT |
| EL | ELEVATION |
| ELEC | ELECTRICAL |
| ELEV | ELEVATION |
| EMBED | EMBEDMENT |
| ENCL | ENCLOSURE |
| ENG | ENGINEER |
| EP | EXPLOSION PROOF, EPOXY PAINT |
| EQ, EQUIP | EQUAL, EQUIPMENT |
| EQMT | EQUIPMENT |
| ER | EXHAUST REGISTER |
| ESP | EXTERNAL STATIC PRESSURE |
| ET | EXPANSION TANK |
| ETM | ELAPSED TIME METER |
| EUH | ELECTRIC UNIT HEATER |
| EVAP | EVAPORATOR |
| EW | EACH WAY |
| EWC | ELECTRIC WATER COOLER |
| EWEF | EACH WAY EACH FACE |
| EWT | ENTERING WATER TEMPERATURE |
| EXIST | EXISTING |
| EXP | EXPANSION |
| EXP MAT | EXPANSION MATERIAL |
| EXT | EXTERIOR, EXTERNAL |
| F | DEGREES FAHRENHEIT, FLUORIDE |
| FA | FACE AREA, FREE AREA |
| FAB | FABRICATE(D) |
| FAC | FLANGED ADAPTOR COUPLING |
| FB | FLAT BAR, FLOOR BEAM |
| FC | FAN COIL UNIT, FLEXIBLE CONNECTION |
| FCA | FLANGE COUPLING ADAPTOR |
| FD | FIRE DAMPER, FLOOR DRAIN |
| FDGGF | FREE DRAINING GRADED GRANULAR FILL |
| FDN | FOUNDATION |
| FE | FLANGED END, FIRE EXTINGUISHER |
| FEC | FIRE EXTINGUISHER CABINET |
| FF | FINISHED FLOOR |
| FG | FLOOR GRILLE |
| FH | FIRE HYDRANT |
| FIL | FILTRATE |
| FIN | FINISH |
| FIN FLR | FINISHED FLOOR |
| FL | FLOW LINE, FLUORESCENT |
| FLA | FULL LOAD AMPS |
| FLEX | FLEXIBLE |
| FLG | FLANGE |
| FLR | FLOOR |
| FM | FORCEMAIN |
| FO | FIBER OPTICS |
| FOB | FLAT ON BOTTOM |
| FOC | FACE OF CONCRETE |
| FOM | FACE OF MASONRY |
| FOS | FACE OF STEEL |
| FOT | FLAT ON TOP |
| FOW | FACE OF WALL |
| FPM | FEET PER MINUTE |
| FPS | FEET PER SECOND |
| FR | FLOOR REGISTER |
| FRP | FIBERGLASS REINFORCED PLASTIC OR PNL |
| FS | FLOOR STAND |
| FT | FEET, FLOW TRANSMITTER |
| FTG | FOOTING |
| FV | FIELD VERIFY |
| G | GATE, GROUND |
| GA | GAUGE, GAGE |
| GAL | GALLONS |
| GALV | GALVANIZED |
| GB | GYPSUM BOARD |
| GC | GAS CHROMATOGRAPH (FLOW COMPUTER) |
| GEN | GENERATOR |
| GFI | GROUND FAULT INTERRUPT |
| GFR | GROUND FAULT RELAY |
| GFS | GROUND FAULT SLAVE (PROTECTED UPSTREAM) |
| GL | GLASS |
| GPD | GALLONS PER DAY |
| GPH | GALLONS PER HOUR |
| GPM | GALLONS PER MINUTE |
| GRTG | GRATING |
| GV | GATE VALVE |
| GWB | GYPSUM WALL BOARD |
| GYP | GYPSUM |
| HB | HOSE BIBB |
| HC | HEATING COIL, HANDICAP (PED) |
| HCAP | HANDICAP (PED) |
| HD | HEAD |
| HDPE | HIGH DENSITY POLYETHYLENE |
| HDR | HEADER |
| HG | MERCURY |
| HH | HANDHOLE |
| HID | HIGH INTENSITY DISCHARGE |
| HM | HOLLOW METAL |
| HMA | HOT MIX ASPHALT |
| HOA | HAND OFF AUTOMATIC |
| HOR | HORIZONTAL |
| HP | HORSEPOWER, HIGH POINT |
| HPG | HIGH PRESSURE GAS |
| HPS | HIGH PRESSURE SODIUM |
| HR | HOUR |
| HSGL | HEAT STRENGTHENED GLASS |
| HSS | HOLLOW STRUCTURAL SHAPE |
| HT | HEIGHT |
| HTG | HEATING |
| HTR | HEATER |
| HU | HUMIDIFIER |
| HVAC | HEATING, VENTILATING, AIR CONDITIONING |
| HW | HOT WATER |
| HWC | HOT WATER RECIRCULATED |
| HWP | HEATING WATER PUMP |
| HWR | HOT WATER RETURN |
| HWS | HOT WATER SUPPLY |
| HWUH | HOT WATER UNIT HEATER |
| HX | HEAT EXCHANGER |
| HZ | HERTZ |
| IBC | INTERNATIONAL BUILDING CODE |
| IFC | INTERNATIONAL FIRE CODE |
| IPC | INTERNATIONAL PLUMBING CODE |
| IMC | INTERNATIONAL MECHANICAL CODE |
| ID | INSIDE DIAMETER |
| IE | INVERT ELEVATION |
| I/F, IF | INSIDE FACE |
| IN | INCHES |
| INC | INCANDESCENT |
| INF | INFLUENT |
| INSUL | INSULATION |
| INT | INTERIOR |
| INVT | INVERT |
| JB | JUNCTION BOX |
| JS | JANITOR SINK |
| JT, JNT | JOINT |
| K | STRUCTURAL BAR JOIST SHAPE |
| KCMIL | THOUSAND CIRCULAR MILS |
| KVA | 1,000 VOLT AMPS |
| kW | 1,000 WATT |
| KWH | KILOWATT – HOUR |
| L | LOUVER, ANGLE |
| LA | LIGHTNING ARRESTOR |
| LAB | LABORATORY |
| LAP | LEVEL ALARM PNL |
| LAT | LEAVING AIR TEMP, LATENT, LATITUDE |
| LAV | LAVATORY |
| LB(S) | POUND(S) |
| LD | LINEAR DIFFUSER |
| LF | LINEAR FEET |
| LFG | LANDFILL GAS |
| LFH | LANDFILL GAS (HIGH PRESS) |
| LFL | LANDFILL GAS (LOW PRESS) |
| LHR | LATENT HEAT RATIO |
| LIN | LINEAR |
| LL | LIVE LOAD |
| LLH | LONG LEG HORIZONTAL |
| LLV | LONG LEG VERTICAL |
| LONG | LONGITUDINAL |
| LOS | LOCKOUT STOP PUSH–BUTTON |
| LP | LOW POINT |
| LPG | LOW PRESSURE GAS |
| LRA | LOCKED ROTOR AMPS |
| LS | LIMIT SWITCH, LIFT STA. |
| LT | LEVEL TRANSDUCER |
| LTG | LIGHTING |
| LWT | LEAVING WATER TEMPERATURE |
| M | METER |
| MA | MILLIAMPERES |
| MAINT | MAINTENANCE |
| MAS | MASONRY |
| MAU | MAKEUP AIR UNIT |
| MAX | MAXIMUM |
| MBH | ONE THOUSAND BTUH |
| MCA | MINIMUM CIRCUIT AMPACITY |
| MCC | MOTOR CONTROL CENTER |
| MD | MOTORIZED DAMPER |
| MECH | MECHANICAL |
| MEZZ | MEZZANINE |
| MFR | MANUFACTURER |
| MG | MILLION GALLON |
| MGD | MILLION GALLONS PER DAY |
| MH | MANHOLE, METAL HALIDE |
| MIN | MINIMUM |
| MIRR | MIRRORED |
| MISC | MISCELLANEOUS |
| MJ | MECHANICAL JOINT |
| MK | MARK |
| MM | MAG METER |
| MO | MASONRY OPENING |
| MOCP | MAXIMUM OVERCURRENT PROTECTION |
| MPH | MILES PER HOUR |
| MTD | MOUNTED |
| MTL | METAL |
| MV | MUD VALVE |
| MW | MASONRY WALL |
| N | NEUTRAL, NORTHING |
| NA, N/A | NOT APPLICABLE |
| NC | NOISE CRITERIA, NORMALLY CLOSED |
| NEC | NATIONAL ELECTRICAL CODE |
| NEG | NEGATIVE |
| NFPA | NATIONAL FIRE PROTECTION ASSOCIATION |
| NIC | NOT IN CONTRACT |
| NL | NIGHTLIGHT |
| NO | NORMALLY OPEN, NUMBER |
| NOM | NOMINAL |
| NPT | NATIONAL PIPE THREAD |
| NPS | NOMINAL PIPE SIZE |
| NRP | NON–REMOVABLE PIN |
| NTS | NOT TO SCALE |
| OA | OUTSIDE AIR |
| OAT | OUTDOOR AIR TEMPERATURE |
| OBD | OPPOSED BLADE DAMPER |
| OC | ON CENTER |
| OD | OUTSIDE DIAMETER, OVERFLOW DRAIN |
| OED | OPEN END DUCT |
| O/F, OF | OUTSIDE FACE, OPEN FACE, OVERFLOW |
| OH | OVERHEAD |
| OHE | OVERHEAD ELECTRIC |
| OL | MOTOR OVERLOAD CONTACTS |
| OPNG | OPENING |
| OPP | OPPOSITE |
| OSB | ORIENTED STRAND BOARD |
| P | POLE, PUMP |
| PART | PARTIAL |
| PB | PUSHBUTTON, PULL BOX, PANEL BOARD |
| PBD | PARALLEL BLADE DAMPER |
| PC | PRECAST CONCRETE |
| PCC | PORTLAND CEMENT CONCRETE |
| PCF | POUNDS PER CUBIC FOOT |
| PCST | PRECAST |
| PD | PRESSURE DROP |
| PE | PLAIN END, POLYETHYLENE |
| PERF | PERFORATED |
| PERP | PERPENDICULAR |
| PG | PROFILE GRADE |
| PH | PHASE |
| PJF | PREFORMED JOINT FILLER |
| PL | PLATE, PURGE LINE |
| PLWD | PLYWOOD |
| PNL | PANEL |
| POJ | PUSH ON JOINT |
| PPM | PARTS PER MILLION |
| PR | PAIR |
| PROJ | PROJECTION |
| PRV | PRESSURE REDUCING VALVE |
| PS | PRESSURE SWITCH, PUMP STA. |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| PSIA | PSI, ABSOLUTE |
| PSIG | PSI, GAGE |
| PSW | PLANT SERVICE WATER |
| PTAC | PACKAGED TERMINAL AIR CONDITIONER |
| PT | POTENTIAL TRANSFORMER, PAINT, PRESSURE TANK |
| PV | PLUG VALVE |
| PVC | POLYVINYL CHLORIDE |
| QTY | QUANTITY |
| R | RISER(S), RADIUS |
| RA | RETURN AIR |
| RAD | RADIUS |
| RAS | RETURN ACTIVATED SLUDGE |
| RB | ROOF BEAM, RESILIENT BASE |
| RCP | REINFORCED CONCRETE PIPE |
| RCMD | RECOMMENDED |
| RD | ROOF DRAIN |
| RECIRC | RECIRCULATE |
| RED | REDUCER |
| REF | REFERENCE |
| REINF | REINFORCE(ING) |
| REQ(D) | REQUIRE(D) |
| REV | REVISED |
| RF | RETURN FAN, RESILIENT FLOORING |
| RG | RETURN GRILLE |
| RH | RELIEF HOOD, RELATIVE HUMIDITY |
| RHC | REHEAT COIL |
| RJ | RESTRAINED JOINT |
| RM | ROOM |
| RO | ROUGH OPENING, REVERSE OSMOSIS |
| ROW | RIGHT OF WAY |
| RPM | REVOLUTIONS PER MINUTE |
| RR | RETURN REGISTER, RAILROAD |
| RS | RAW SEWAGE |
| RTU | ROOFTOP UNIT |
| RW | RESILIENT WEDGE |
| S&F | SECURITY & FIRE PNL |
| SA | SUPPLY AIR |
| SAN | SANITARY, SANITARY SEWER |
| SAT | SATURATION |
| SB | SOIL BORING |
| SCFM | CFM, AT STANDARD CONDITIONS |
| SCH | SCHEDULE |
| SD | SMOKE DAMPER |
| SEER | SEASONAL ENERGY EFFICIENCY RATIO EFFICIENCY RATIO |
| SEN | SENSIBLE |
| SF | SUPPLY FAN, SQUARE FOOT |
| SG | SUPPLY GRILLE, SLIDE/SLUICE GATE |
| SH | SHIELDED, SHOWER, SHEET |
| SIM | SIMILAR |
| SJ | SOFT JOINT, SAW CUT JOINT |
| SHR | SENSIBLE HEAT RATIO |
| SHT | SHEET |
| SIM | SIMILAR |
| SK | SINK |
| SL | SNOW LOAD |
| SMACNA | SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION |
| SP | STATIC PRESSURE, SUMP PUMP, SPACE(S) |
| SPEC | SPECIFICATION |
| SQ | SQUARE |
| SQ FT | SQUARE FEET |
| SR | SUPPLY REGISTER |
| SS | STAINLESS STEEL |
| SSH | SAFETY SHOWER |
| SSL | SECONDARY SLUDGE |
| SST | SATURATED SUCTION TEMPERATURE |
| STC | SOUND TRANSMISSION CLASS |
| STD | STANDARD |
| STL | STEEL |
| SUCT | SUCTION |
| SW | SWITCH, SAMPLING |
| T | TEMPERATURE, THREAD |
| T&B | TOP AND BOTTOM |
| TACH | TACHOMETER |
| TB | TERMINAL BOARD |
| TBS | THICKENED BLENDED SLUDGE |
| TCP | TEMP CONTROL PNL |
| TD | TEMPERATURE DIFFERENCE |
| TDH | TOTAL DYNAMIC HEAD |
| TEL | TELEPHONE |
| TEMP | TEMPERATURE, TEMPORARY, TEMPERED |
| TFR | TRICKLING FILTER RECYCLE |
| TGL | TEMPERED GLASS |
| TMV | THERMOSTATIC MIXING VALVE |
| T/ | TOP OF |
| TOC | TOP OF CONCRETE |
| TOD | TOP OF DUCT |
| TONS | TONS OF REFRIGERATION |
| TOS | TOP OF STEEL |
| TOW | TOP OF WALL |
| TP | TWISTED PAIR |
| TR | TREAD(S) |
| TSG | TEMPERED SAFETY GLASS |
| TSP | TOTAL STATIC PRESSURE, TWISTED SHIELDED PAIR |
| TST | TWISTED SHIELDED TRIAD |
| TSTAT | THERMOSTAT |
| TWAS | THICKENED WASTE ACTIVATED SLUDGE |
| TYP | TYPICAL |
| U | HEAT TRANSFER COEFFICIENT |
| UBC | UNIFORM BUILDING CODE |
| UFC | UNIFORM FIRE CODE |
| UG | UNDERGROUND |
| UGE | UNDERGROUND ELECTRIC |
| UGT | UNDERGROUND TELEPHONE |
| UH | UNIT HEATER |
| UMC | UNIFORM MECHANICAL CODE |
| UNO | UNLESS NOTED OTHERWISE |
| UPC | UNIFORM PLUMBING CODE |
| UR | URINAL |
| V | VALVE, VENT, VOLTS |
| VA | VOLT – AMPERES |
| VAC | VACUUM |
| VAV | VARIABLE AIR VOLUME |
| VB | VINYL BASE, VALVE BOX, VAPOR BARRIER |
| VC | VICTAULIC COUPLING |
| VCP | VITRIFIED CLAY PIPE |
| VCT | VINYL COMPOSITION TILE |
| VD | VOLUME DAMPER |
| VEL | VELOCITY |
| VENT | VENTILATION |
| VERT | VERTICAL |
| VFD | VARIABLE FREQUENCY DRIVE |
| VLV | VALVE |
| VOL | VOLUME |
| VS | VARIABLE SPEED |
| VTR | VENT THRU ROOF |
| W | WATER, WATTS, WIDE FLANGE, WINDOW |
| W/ | WITH |
| W/O | WITHOUT |
| WAP | WALL PIPE |
| WAS | WASTE ACTIVATED SLUDGE |
| WB | WET BULB |
| WC | WATER CLOSET, WATER COLUMN, WATER COOLER |
| WD | WOOD, WATER DISTILLED |
| WF | WIDE FLANGE |
| WG | WATER GAUGE |
| WH | WATER HEATER, WALL HYDRANT |
| WNDW | WINDOW, WINDOWS |
| WL | WIND LOAD |
| WP | WORK POINT, WEATHERPROOF, WATER PROOF |
| WS | WALL SLEEVE, WATERSTOP, WATER SURFACE |
| WSV | WALL SLEEVE |
| WSHP | WATER SOURCE HEAT PUMP |
| WT | WATER TANK |
| WW | WARM WATER, WASTE WATER |
| WWR | WELDED WIRE REINFORCING |
| XDCR | TRANSDUCER |
| XFMR | TRANSFORMER |
| XMTR | TRANSMITTER |
| YD | YARD |
| YDS | YARDS |
| YH | YARD HYDRANT |
| ZS | POSITION SWITCH |

NOTE:

1. THE LIST OF ABBREVIATIONS SHOWN IS A STANDARD LIST. NOT ALL ABBREVIATIONS ARE USED IN THESE DRAWINGS

| | |
|---|---|
| 1050 | EXISTING MAJOR CONTOUR |
| 1049 | EXISTING MINOR CONTOUR |
| | EXISTING FENCE |
| | EXISTING ROW FENCE |
| | EXISTING GRAVEL SURFACE |
| | EXISTING SECTION LINE |
| UGTV | EXISTING UNDERGROUND TELEVISION |
| OE | EXISTING OVERHEAD ELECTRIC |
| UE | EXISTING UNDERGROUND ELECTRIC |
| FO | EXISTING FIBEROPTIC |
| G | EXISTING GAS |
| 6"SAN | EXISTING SANITARY SEWER |
| 10"ST | EXISTING STORM SEWER |
| UGT | EXISTING UNDERGROUND TELEPHONE |
| 1041 | EXISTING MINOR CONTOUR |
| 1045 | EXISTING MAJOR CONTOUR |
| W | EXISTING WATER |
| W3 | EXISTING FLUSHING WATER |
| R/W | EXISTING RIGHT OF WAY |
| PL | EXISTING PROPERTY LINE |
| 1041 | PROPOSED MINOR CONTOUR |
| 1045 | PROPOSED MAJOR CONTOUR |
| | TREE PROTECTION |
| | PROPOSED FENCE |
| | PROPOSED PERMANENT EASEMENT |
| | PROPOSED SILT FENCE |
| | PROPOSED TEMPORARY EASEMENT |
| | PROPOSED CULVERT |
| | DEMOLITION |
| GAS | PROPOSED GAS LINE |
| W3 | PROPOSED PLANT EFFLUENT WATER |
| SAN | PROPOSED SANITARY SEWER |
| ST | PROPOSED STORM SEWER |
| FIRE | PROPOSED FIRE PROTECTION WATER |
| | PROPOSED POTABLE WATER |
| IRR | PROPOSED POTABLE WATER |
| | PROPOSED CRUSHED STONE |
| | PROPOSED CONCRETE PAVING |
| | PROPOSED HOT–MIX ASPHALT PAVING |

## CIVIL LEGEND

| | |
|---|---|
| | BENCHMARK, CONTROL POINT, ELEVATION INDICATOR |
| | CONCRETE MONUMENT |
| | IRON PIN FOUND |
| | IRON PIN SET |
| | OPEN PIPE |
| | ROW RAIL |
| | SECTION CORNER |
| | CHISELED X |
| | AREA INTAKE |
| | FIRE HYDRANT |
| | GUY WIRE |
| | MAILBOX |
| | POWERPOLE |
| | CONIFEROUS TREE |
| | DECIDUOUS TREE |
| | CORNER MONUMENT |
| B–INT | BEEHIVE INTAKE |
| TV | CABLE BOX |
| CO | CLEAN OUT |
| | ELECTRIC METER |
| E | ELECTRIC BOX |
| | PHONE BOOTH |
| | GAS METER |
| | CURB INTAKE |
| | HANDICAP |
| | INTAKE |
| | LIGHT POLE |
| S | SANITARY MANHOLE |
| MW | MONITORING WELL |
| | POST |
| | RAILROAD SIGN |
| | SATELLITE DISH |
| | SIGN |
| | SIGN |
| | SOIL BORING |
| | TREE STUMP |
| T | TELEPHONE BOX |
| | TELEPHONE PEDESTAL |
| | TRAFFIC SIGNAL |
| | TRAFFIC SIGN |
| | YARD LIGHT |
| | BURIED VALVE |
| NORTH | TRUE NORTH ARROW |
| 0 20 1"=20' | CIVIL SCALE BAR |

PRELIMINARY
NOT FOR CONSTRUCTION

| | | | |
|---|---|---|---|
| DRAWN BY: CMB | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| APPROVED: MJR | JOB NUMBER: 160473 | | |
| CAD DATE: 8/11/2020 7:30:39 AM | | | |
| CAD FILE: J:\2016\160473\CAD\Phase-1\Dwgs\G\G.02 ABBREVIATIONS AND LEGEND | | | |

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GENERAL
ABBREVIATIONS, LEGEND, AND SHEET INDEX

SHEET NO.
G.02

Xrefs: xgt-1-dh01; XG-00-LEGENDS

NORTH

PRELIMINARY
NOT FOR CONSTRUCTION

| | | | |
|---|---|---|---|
| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| APPROVED: MAR | JOB NUMBER: 160473 | | |
| CAD DATE: 8/3/2020 4:47:16 PM | | | |
| CAD FILE: J:\2016\160473\CAD\Phase-1\Dwgs\G\G.03 GENERAL NOTES, ALIGNMENTS, AND CONTROL.dwg | | | |

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GENERAL
GENERAL NOTES, ALIGNMENTS, AND CONTROL

SHEET NO.
G.03

Xrefs: xgl-1-dh01

PRELIMINARY
NOT FOR CONSTRUCTION

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| DRAWN BY: CMB | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
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| CAD DATE: 7/22/2020 1:40:00 PM | | | |
| CAD FILE: J:\2016\160473\CAD\Phase-1\Dwgs\G\G.04 QUANTITIES AND ERI | | | |

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GENERAL

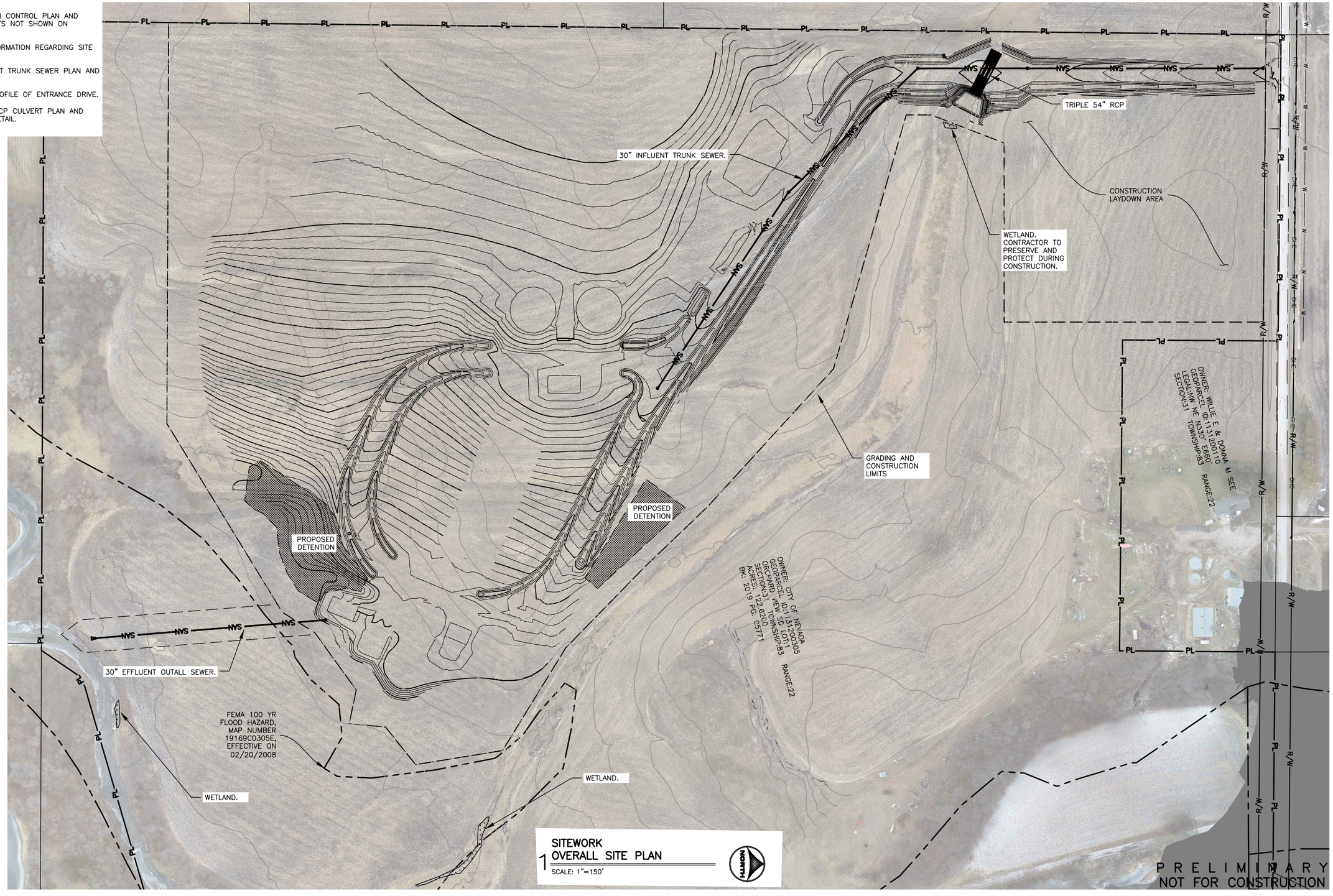
QUANTITIES AND ERI

SHEET NO.
G.04

Xrefs: xgl-1-dh01

GENERAL NOTES:

1. REFER TO C.02–C.03 FOR EROSION CONTROL PLAN AND NOTES. EROSION CONTROL ELEMENTS NOT SHOWN ON OVERALL SITE PLAN.
2. REFER TO C.04 FOR DETAILED INFORMATION REGARDING SITE GRADING.
3. REFER TO C.05–C.07 FOR INFLUENT TRUNK SEWER PLAN AND PROFILE.
4. REFER TO C.09 FOR PLAN AND PROFILE OF ENTRANCE DRIVE.
5. REFER TO C.10 FOR TRIPLE 54" RCP CULVERT PLAN AND PROFILE AND DISSIPATION BASIN DETAIL.




1 SITEWORK
OVERALL SITE PLAN
SCALE: 1"=150'

| | | | |
|---|---|---|---|
| DRAWN BY: VALUE | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| APPROVED: VALUE | JOB NUMBER: 160473 | | |
| CAD DATE: 8/12/2020 11:21:36 AM | | | |
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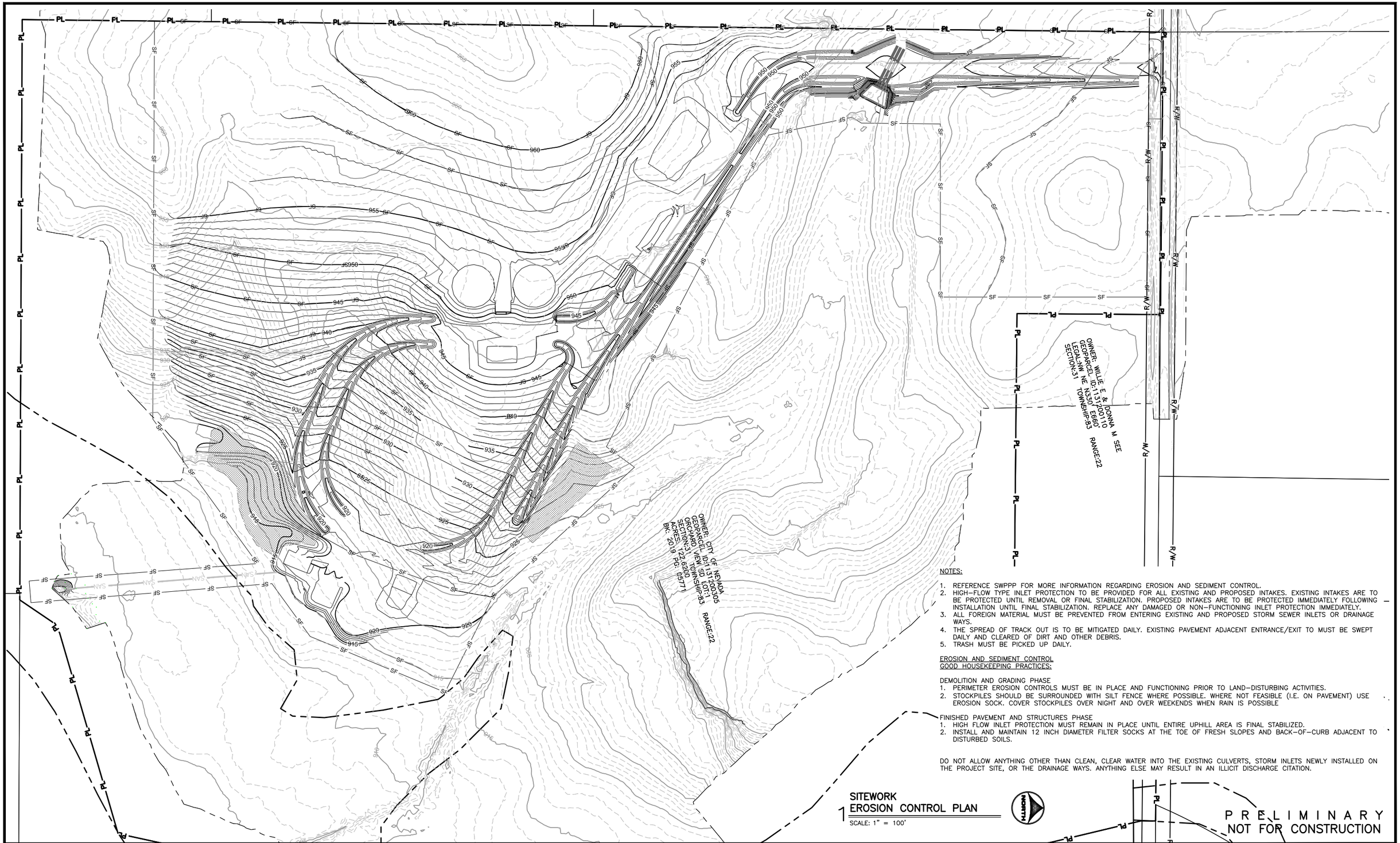
CIVIL SITEWORK
OVERALL SITE PLAN

SHEET NO.
C.01

Xrefs: xgl-1-dh01; XCS-BASE; XCS-DSGN; XCS-PARCELS; XCS-ROW; XVX-IMAGE; XCS-BLDG-INDEX; XCP-PATT; XCG-CONSTRUCTION-LIMITS; XCU-STRM; XVS-GIS-100YR-FLOOD; XCU-SAN; XVE-WETL-GIS




NOTES:

1. REFERENCE SWPPP FOR MORE INFORMATION REGARDING EROSION AND SEDIMENT CONTROL.
2. HIGH-FLOW TYPE INLET PROTECTION TO BE PROVIDED FOR ALL EXISTING AND PROPOSED INTAKES. EXISTING INTAKES ARE TO BE PROTECTED UNTIL REMOVAL OR FINAL STABILIZATION. PROPOSED INTAKES ARE TO BE PROTECTED IMMEDIATELY FOLLOWING INSTALLATION UNTIL FINAL STABILIZATION. REPLACE ANY DAMAGED OR NON-FUNCTIONING INLET PROTECTION IMMEDIATELY.
3. ALL FOREIGN MATERIAL MUST BE PREVENTED FROM ENTERING EXISTING AND PROPOSED STORM SEWER INLETS OR DRAINAGE WAYS.
4. THE SPREAD OF TRACK OUT IS TO BE MITIGATED DAILY. EXISTING PAVEMENT ADJACENT ENTRANCE/EXIT TO MUST BE SWEPT DAILY AND CLEARED OF DIRT AND OTHER DEBRIS.
5. TRASH MUST BE PICKED UP DAILY.

EROSION AND SEDIMENT CONTROL
GOOD HOUSEKEEPING PRACTICES:

DEMOLITION AND GRADING PHASE
1. PERIMETER EROSION CONTROLS MUST BE IN PLACE AND FUNCTIONING PRIOR TO LAND-DISTURBING ACTIVITIES.
2. STOCKPILES SHOULD BE SURROUNDED WITH SILT FENCE WHERE POSSIBLE. WHERE NOT FEASIBLE (I.E. ON PAVEMENT) USE EROSION SOCK. COVER STOCKPILES OVER NIGHT AND OVER WEEKENDS WHEN RAIN IS POSSIBLE

FINISHED PAVEMENT AND STRUCTURES PHASE
1. HIGH FLOW INLET PROTECTION MUST REMAIN IN PLACE UNTIL ENTIRE UPHILL AREA IS FINAL STABILIZED.
2. INSTALL AND MAINTAIN 12 INCH DIAMETER FILTER SOCKS AT THE TOE OF FRESH SLOPES AND BACK-OF-CURB ADJACENT TO DISTURBED SOILS.

DO NOT ALLOW ANYTHING OTHER THAN CLEAN, CLEAR WATER INTO THE EXISTING CULVERTS, STORM INLETS NEWLY INSTALLED ON THE PROJECT SITE, OR THE DRAINAGE WAYS. ANYTHING ELSE MAY RESULT IN AN ILLICIT DISCHARGE CITATION.

1 SITEWORK
EROSION CONTROL PLAN
SCALE: 1" = 100'

NORTH

PRELIMINARY
NOT FOR CONSTRUCTION

| | | | |
|---|---|---|---|
| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| APPROVED: MAR | JOB NUMBER: 160473 | | |
| CAD DATE: 8/11/2020 3:33:36 PM | | | |
| CAD FILE: J:\2016\160473\CAD\Phase-1\Dwgs\C\C.02 EROSION CONTROL PLAN.dwg | | | |

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CIVIL SITEWORK
EROSION CONTROL PLAN

SHEET NO.
C.02

Xrefs: xgl-1-dh01; XCS-BASE; XCS-PARCELS; XCS-ROW; XCG-CONT-FG; XCU-SANI; XCU-STRM; XVG-CONT-EG; XVS-DIS-100YR-FLOOD; XCG-EROS-PHASE01; XCG-CONSTRUCTION-LIMITS

PRELIMINARY
NOT FOR CONSTRUCTION

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|---|---|---|---|
| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| APPROVED: MAR | JOB NUMBER: 160473 | | |
| CAD DATE: 8/3/2020 4:40:42 PM | | | |
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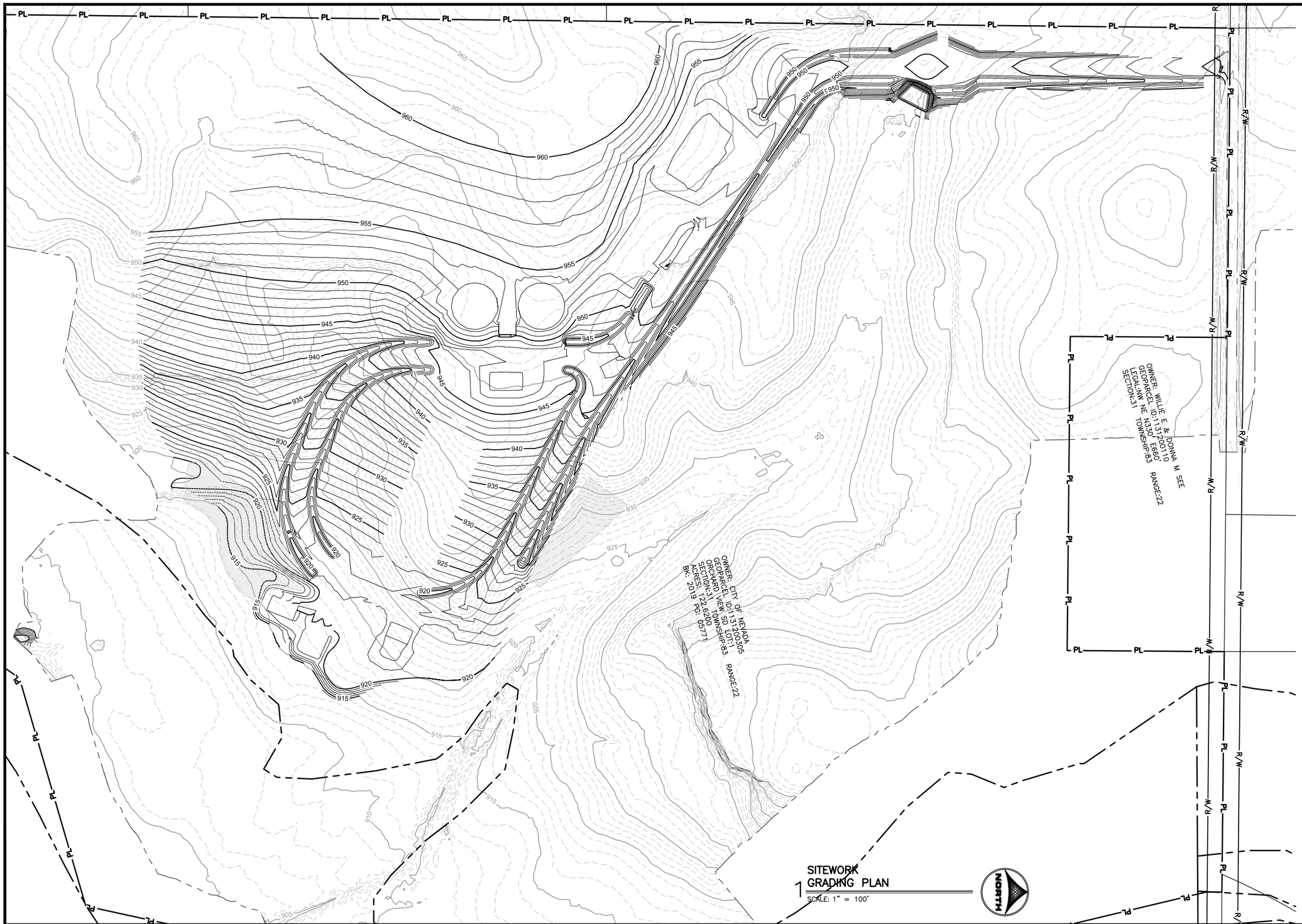
CIVIL SITEWORK
EROSION CONTROL NOTES

SHEET NO.
C.03

Xrefs: xgl-1-dh01




1 SITEWORK GRADING PLAN

SCALE: 1" = 100'

NORTH

PRELIMINARY
NOT FOR CONSTRUCTION

| | | | |
|---|---|---|---|
| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" | |
| APPROVED: MAR | JOB NUMBER: 160473 | IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| CAD DATE: 8/11/2020 3:36:36 PM | | | |
| CAD FILE: J:\2016\160473\CAD\Phase-1\Dwgs\C\C.04 GRADING PLAN.dwg | | | |

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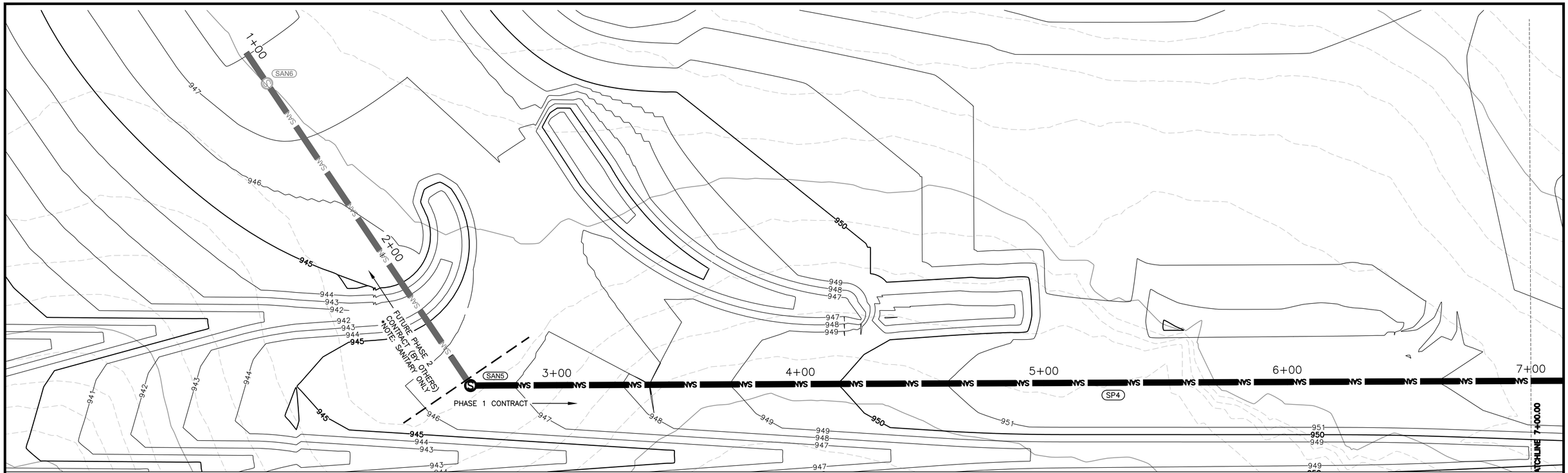
CIVIL SITEWORK
GRADING PLAN

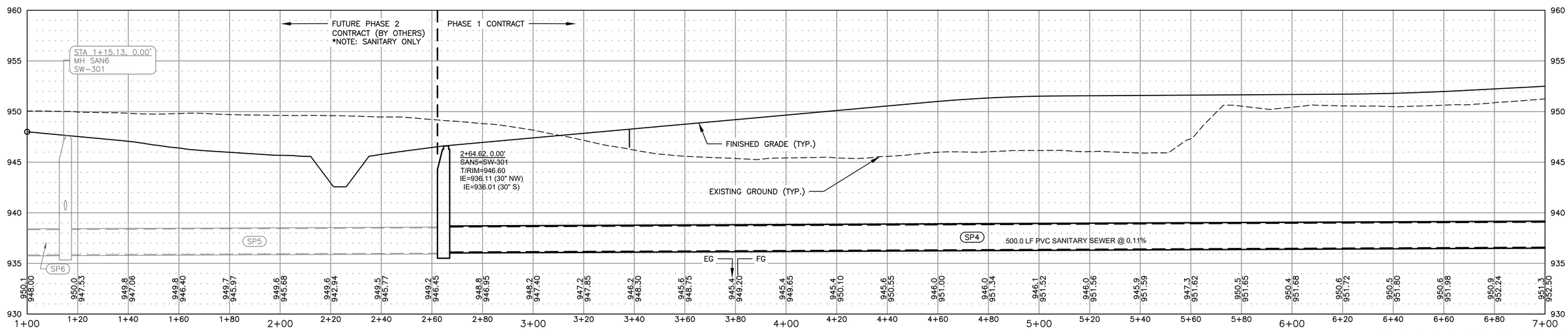
SHEET NO.
C.04

Xrefs: xgl-1-dh01; XCS-BASE; XCS-PARCELS; XCS-ROW; XCG-CONT-FG; XCU-SANI; XCU-STRM; XXG-CONT-EG; XXS-GIS-100YR-FLOOD




## PLAN

SCALE: 0 20 1"=20'




## PROFILE

SCALE: H:1"=20' V:1"=5'

PRELIMINARY
NOT FOR CONSTRUCTION

| | | | |
|---|---|---|---|
| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
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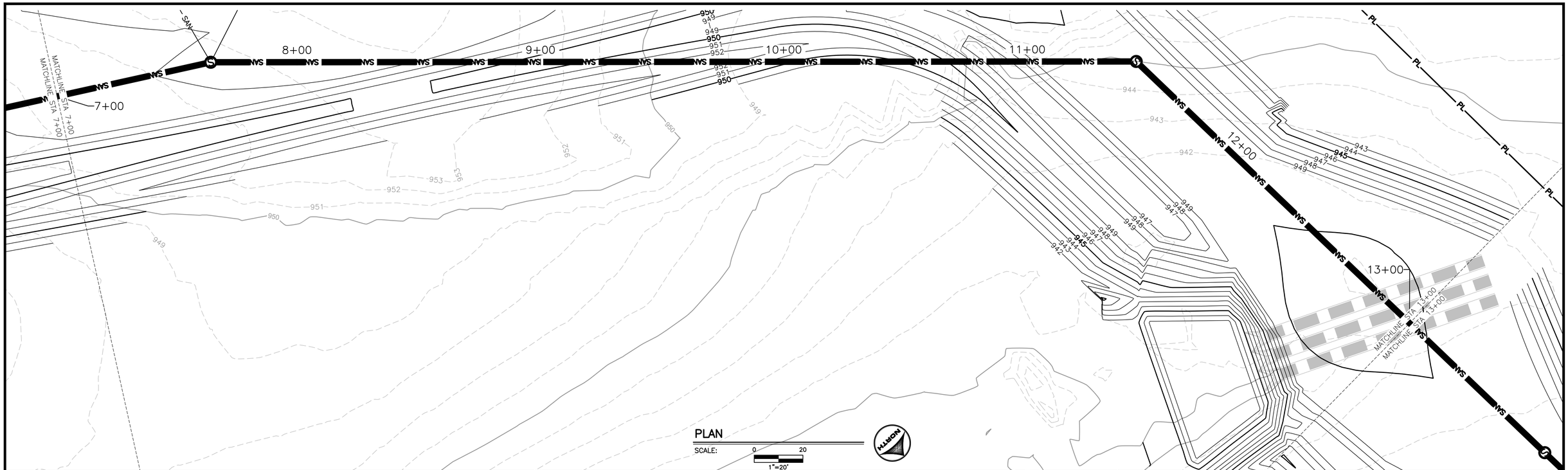
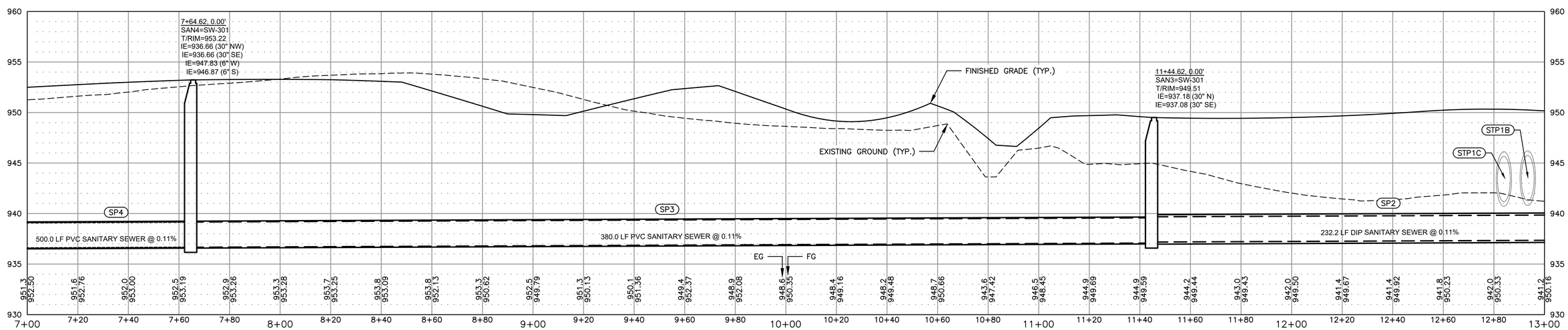
CIVIL SITEWORK
INFLUENT TRUNK SEWER PLAN AND PROFILE

SHEET NO.
C.05

Xrefs: xgt-1-dh01; XCS-DSGN; XCS-BASE; XVG-CONT-EG; XCG-CONT-FG; XCP-PATT; XCT-ALIGNMENT; XCU-ELEC; XCU-STRM; XCU-WATR; XCS-210-P01; XA-210-P01; XEP-210-P01; XP-210-P01; XS-210-GRID; XS-210-P00; XS-210-S01; XCU-SANI




## PLAN




## PROFILE

SCALE: H:1"=20' V:1"=5'

PRELIMINARY
NOT FOR CONSTRUCTION

| | | | |
|---|---|---|---|
| DRAWN BY: XXXX | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| APPROVED: XXXX | JOB NUMBER: 160473 | | |
| CAD DATE: 8/3/2020 4:39:49 PM | | | |
| CAD FILE: J:\2016\160473\CAD\Phase-1\Dwgs\C\C.06 INFLUENT TRUNK SEWER PLAN AND PROFILE.dwg | | | |

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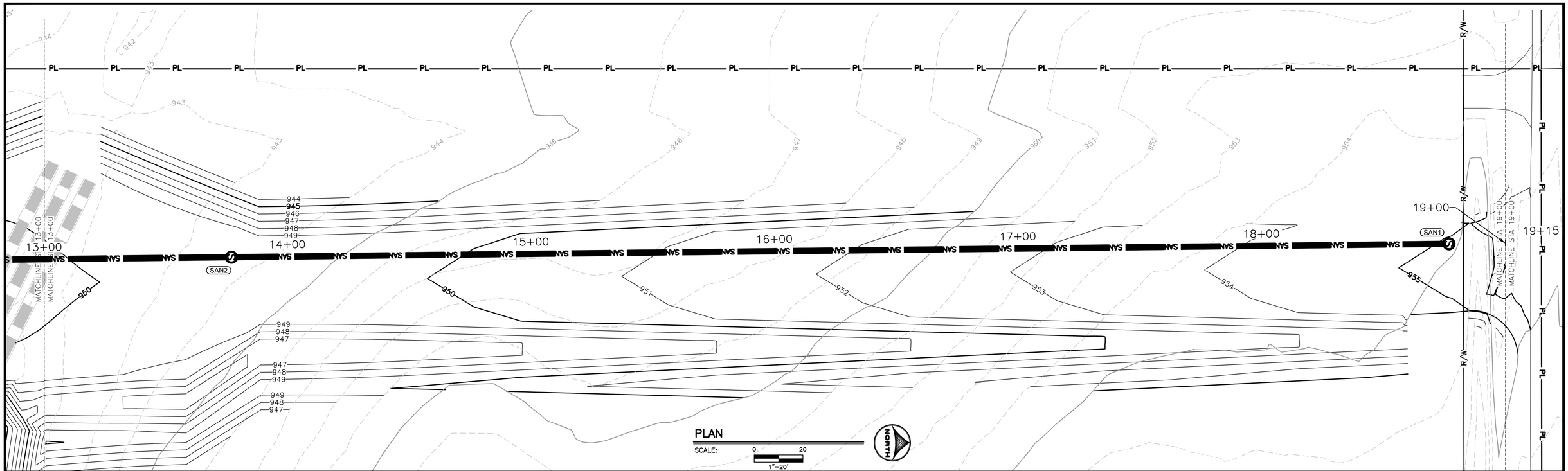
CIVIL SITEWORK
INFLUENT TRUNK SEWER PLAN AND PROFILE

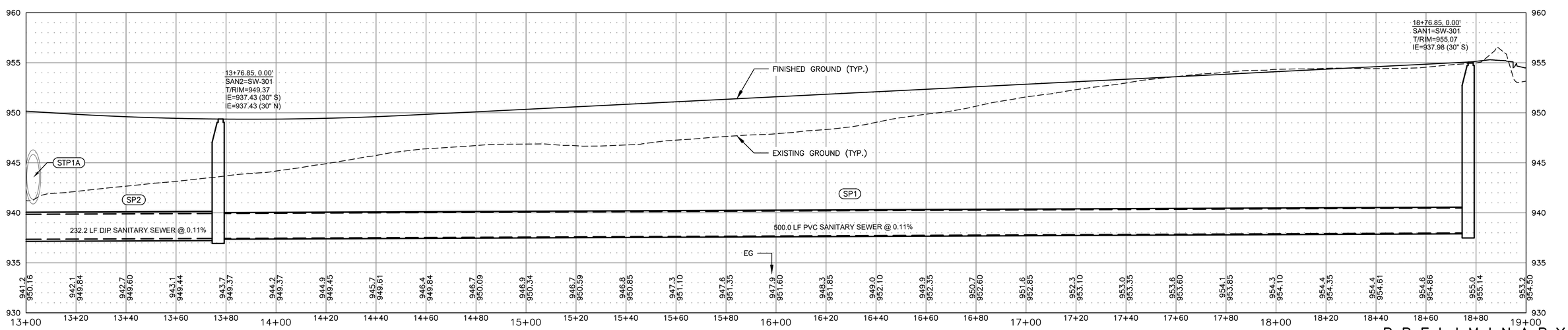
SHEET NO.
C.06

Xrefs: xgl-1-dh01; XCS-DSGN; XCS-PARCELS; XCS-ROW; XCU-PROC; XCU-STRM; XCU-WATR; XVG-CONT-EG; XCG-CONT-FG; XCP-PATT; XCU-SANI




PLAN

SCALE: 0 20 1"=20'




PROFILE

SCALE: H:1"=20' V:1"=5'

PRELIMINARY
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| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
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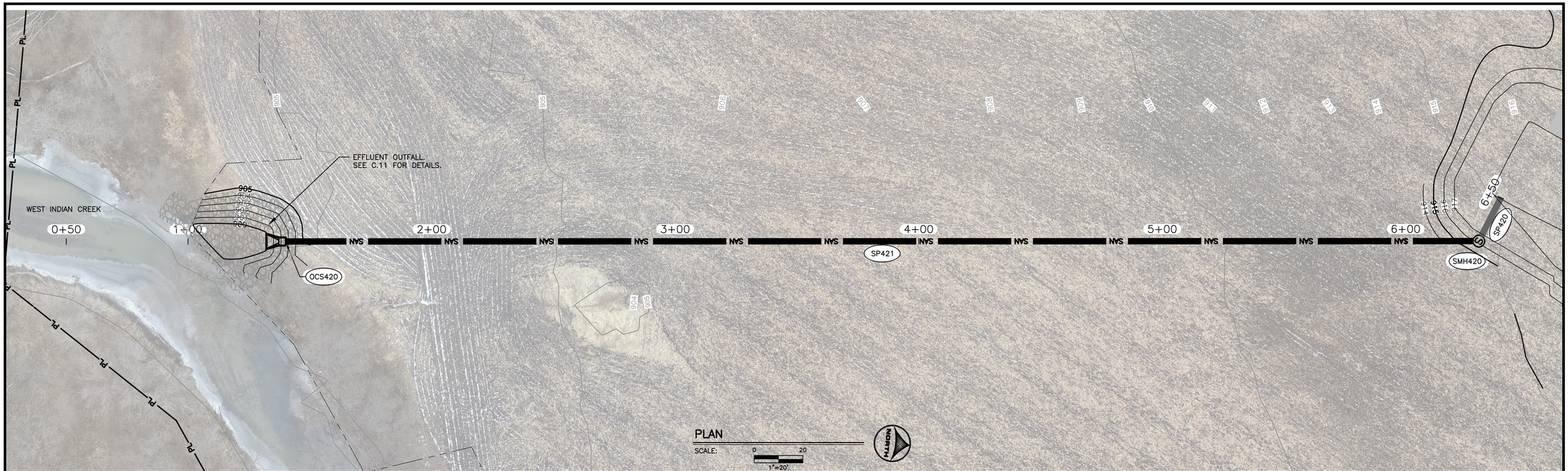
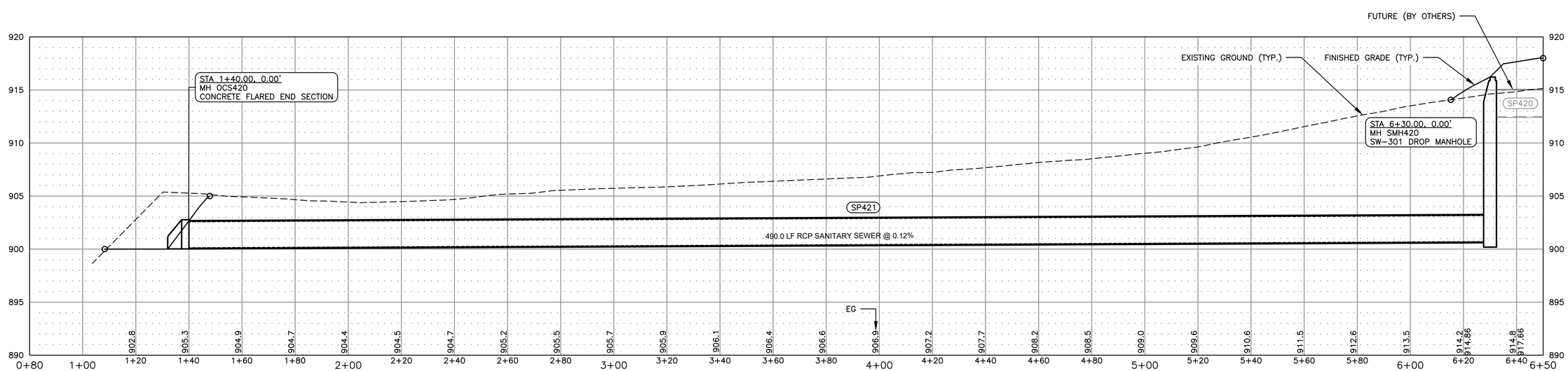
CIVIL SITEWORK

INFLUENT TRUNK SEWER PLAN AND PROFILE

SHEET NO.
C.07

Xrefs: xgl-1-dh01; XCG-CONT-EG; XCS-DSGN; XCS-PARCELS; XCS-ROW; XCU-ELEC; XCU-STRM; XCU-WATR; XVG-CONT-EG; XCU-SANI




## PROFILE

SCALE: H:1"=20' V:1"=5'

PRELIMINARY
NOT FOR CONSTRUCTION

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| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
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| CAD DATE: 8/3/2020 6:14:58 PM | | | |
| CAD FILE: J:\2016\160473\CAD\Phase-1\Dwgs\C\C.08 EFFLUENT OUTFALL PLAN AND PROFILE.dwg | | | |

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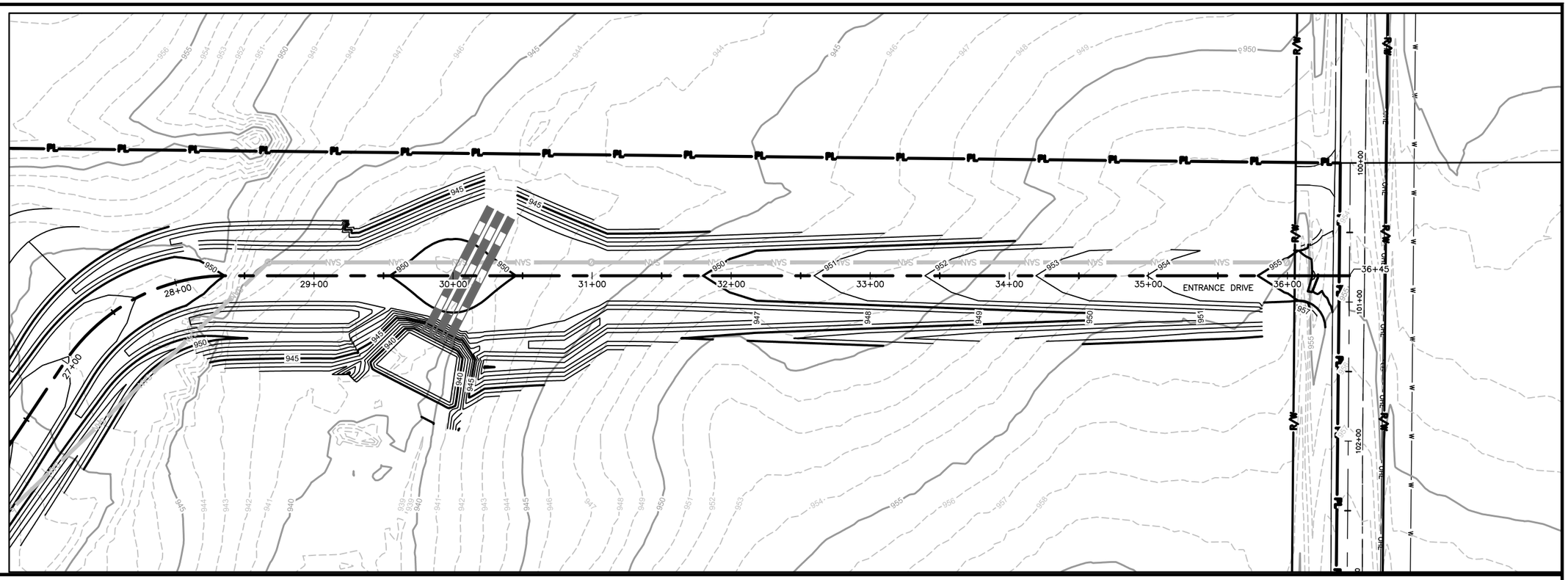
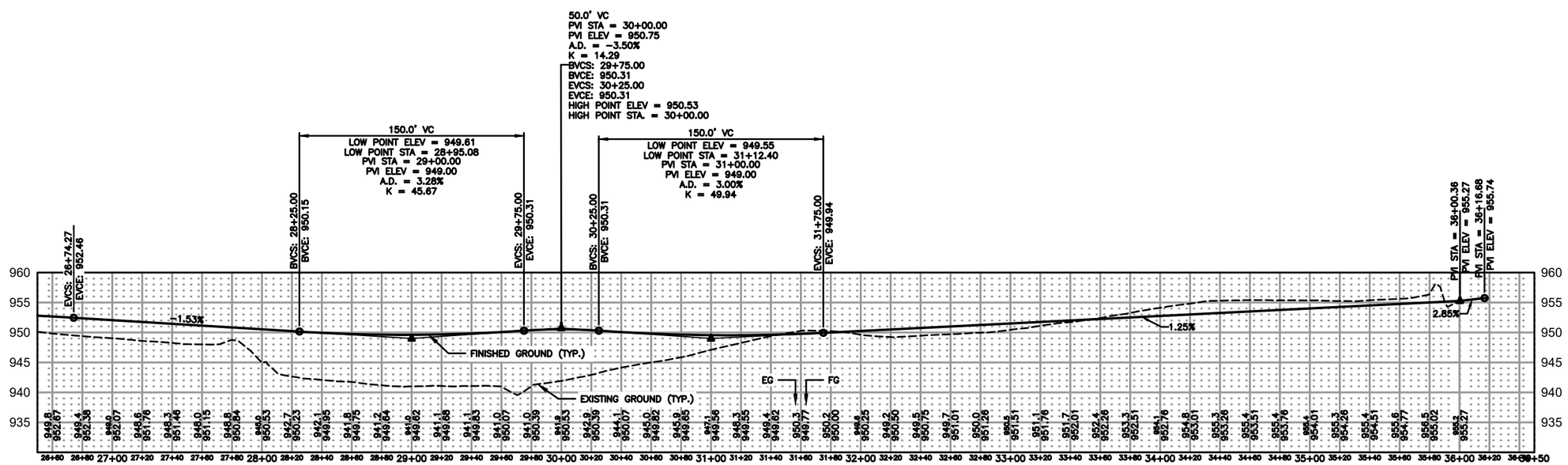
CIVIL SITEWORK
EFFLUENT OUTFALL PLAN AND PROFILE

SHEET NO.
C.08

Xrefs: xgl-1-dh01; XCG-CONT-FG; XCS-420-P01; XA-420-P01; XEP-420-P01; XS-420-GRID; XP-420-P01; XS-420-P01; XCS-BASE; XCS-DSGN; XCS-PARCELS; XCU-PROC; XCU-STRM; XCU-WATR; XVG-CONT-EG; XVX-IMAGE; XVG-CONT-EG-LIDAR; XCP-PATT




1 **SITEWORK**
**ENTRANCE DRIVE GRADING PLAN AND PROFILE**
SCALE: 1"=40'

0 40
1"=40'

**PRELIMINARY**
**NOT FOR CONSTRUCTION**

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| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| APPROVED: MAR | JOB NUMBER: 160473 | | |
| CAD DATE: 8/3/2020 4:39:25 PM | | | |
| CAD FILE: J:\2016\160473\CAD\Phase-1\Dwgs\C\C.09 ENTRANCE DRIVE GRADING PLAN AND PROFILE.dwg | | | |

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**CITY OF NEVADA**
NEVADA, IOWA

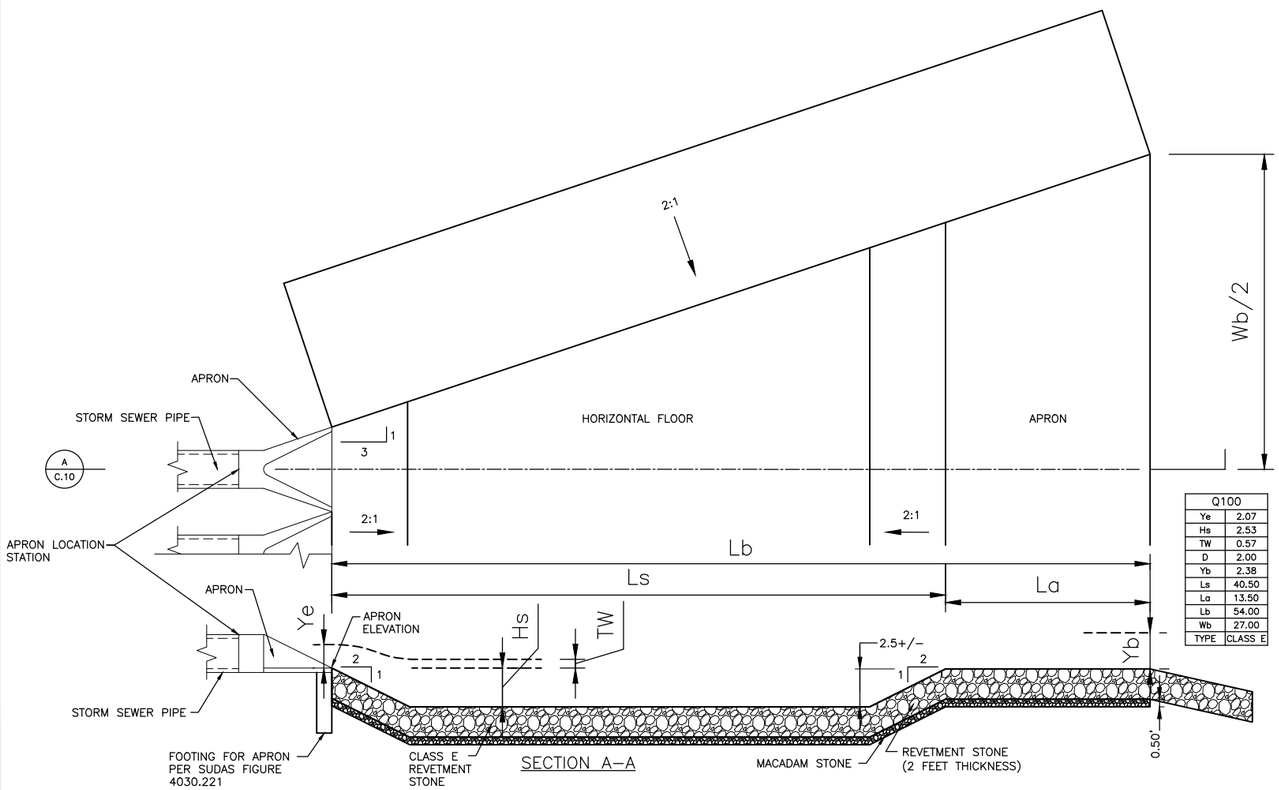
CIVIL SITEWORK
**ENTRANCE DRIVE GRADING PLAN AND PROFILE**

SHEET NO.
**C.09**

Xrefs: xgt-1-dh01; XCS-BASE; XCS-DSGN; XCS-PARCELS; XCS-ROW; XCO-CONT-FG; XCU-ELEC; XCP-PATT; XCU-WATR; XCU-SAN; XCU-STRM; XVC-CONT-EG; XCT-PROFILE

GENERAL NOTES:

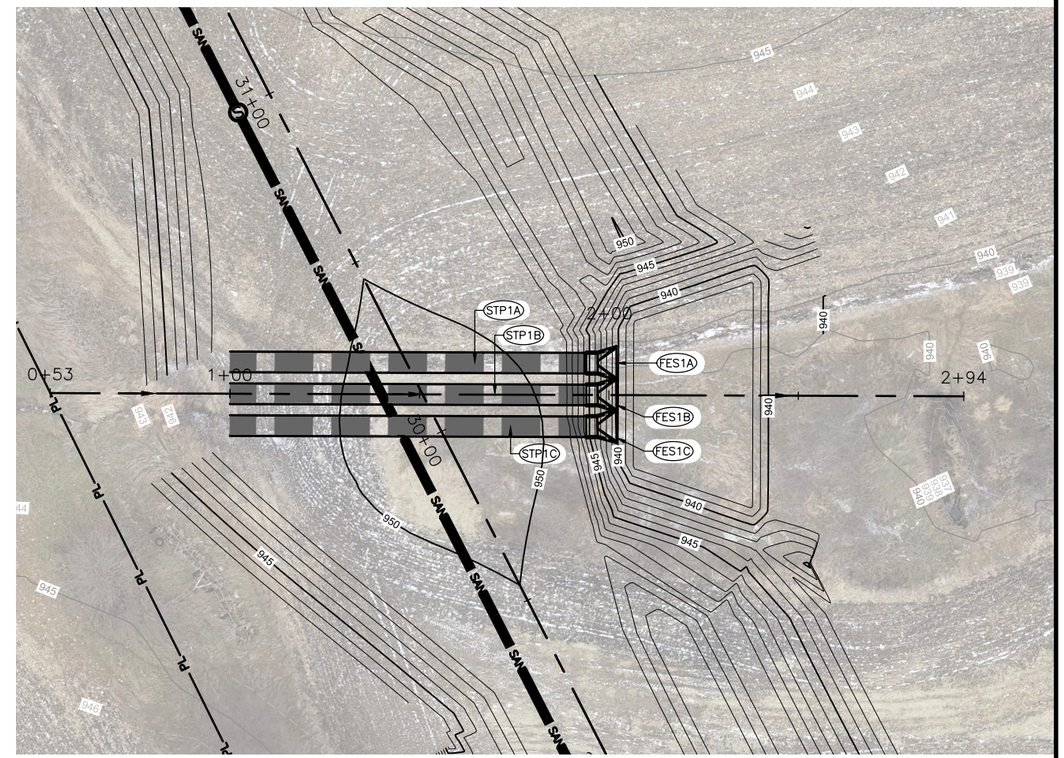
1. ALL ENTRANCE DRIVE PIPING IS SHOWN ON THIS SHEET.
2. ALL APPLICABLE GENERAL NOTES FOUND IN THE YARD PIPING AND UTILITY PIPING SHEETS SHALL APPLY TO THE PIPING SHOWN ON THIS SHEET.

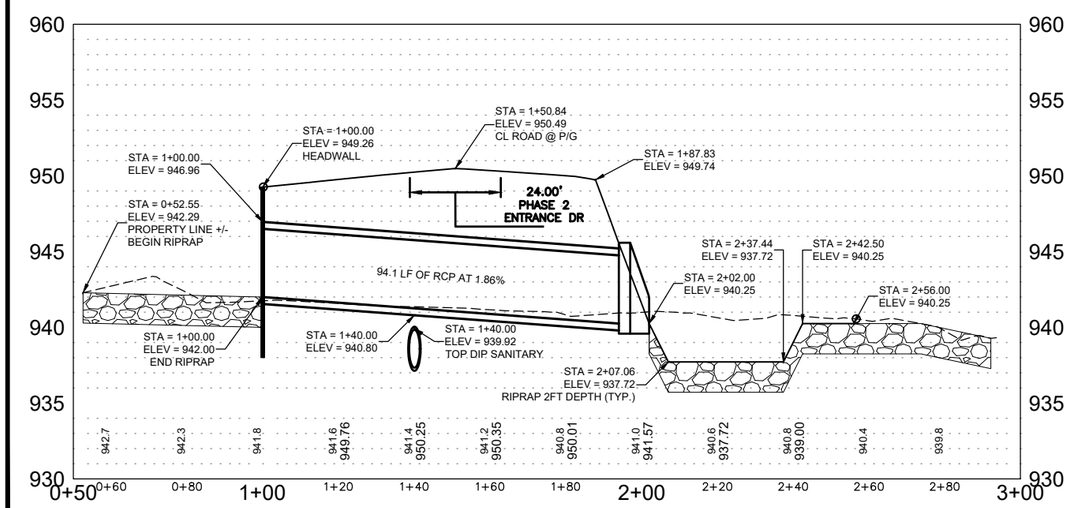



| Q100 | |
|---|---|
| Ye | 2.07 |
| Hs | 2.53 |
| TW | 0.57 |
| D | 2.00 |
| Yb | 2.38 |
| Ls | 40.50 |
| La | 13.50 |
| Lb | 54.00 |
| Wb | 27.00 |
| TYPE | CLASS E |

1 TYPICAL REVETMENT STONE BASIN

SCALE: NTS




2 SITEWORK
DRAINAGE CULVERTS PLAN AND PROFILE

SCALE: 1" = 20'

PRELIMINARY
NOT FOR CONSTRUCTION

| | | | |
|---|---|---|---|
| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| APPROVED: MAR | JOB NUMBER: 160473 | | |
| CAD DATE: 8/3/2020 4:39:18 PM | | | |
| CAD FILE: J:\2016\160473\CAD\Phase-1\Dwgs\C\C.10 DRAINAGE CULVERTS PLAN AND PROFILE.dwg | | | |

| NO. | DATE | BY | REVISION DESCRIPTION |
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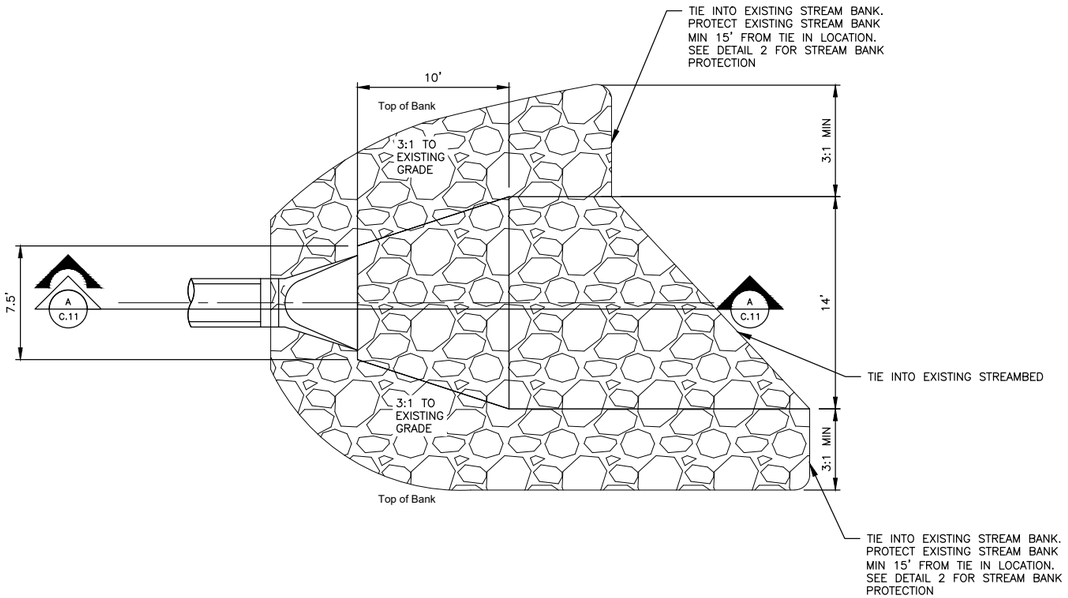
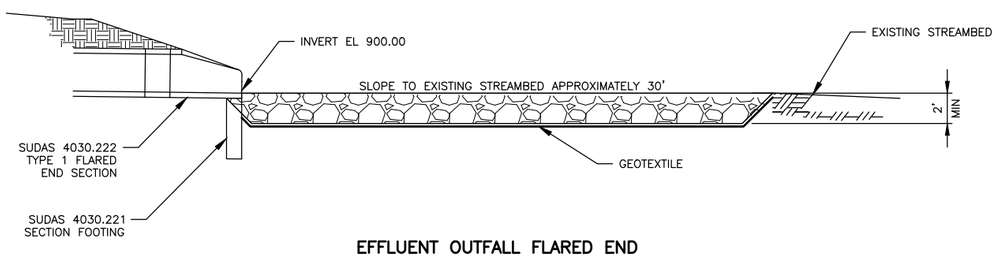
CITY OF NEVADA
NEVADA, IOWA

CIVIL SITEWORK
DRAINAGE CULVERTS PLAN AND PROFILE

SHEET NO.
C.10

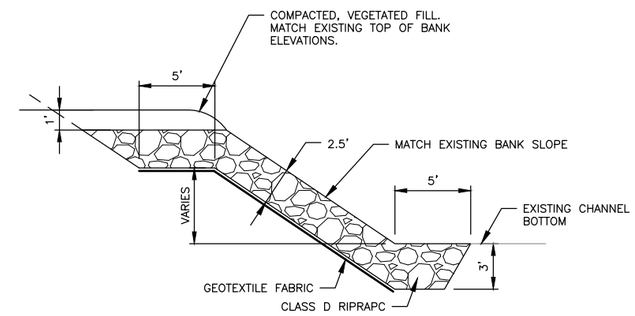
Xrefs: xr-1-001; XCS-BASE; XCS-SSON; XCS-PARCELS; XCS-RPW; XCD-CNT-FG; XCU-ELEC; XCP-PATT; XCU-WATR; XCU-SANI; XCU-STRM; XCT-ALIGNMENT; XVG-CONT-EG; XCU-PIPE; XCS-SBS-P01; XCS-STU-P01; XP-SBS-P00; XCS-SSON; XCS-PARCELS; XCS-RPW; XCD-CNT-FG; XCU-ELEC; XCP-PATT; XCU-WATR; XCU-SANI; XCU-STRM; XCT-ALIGNMENT; XVG-CONT-EG; XCU-PIPE; XCS-SBS-P01; XCS-STU-P01; XP-SBS-P00; XX-STU-P01; XS-STU-P02; XTP-STU-P01; XWWP-STU-P00; XP-STU-P00-auxbox; XS-STU-P00; XVX-IMAGE; XC-001




1 EFFLUENT OUTFALL FLARED END SECTION AND RIPRAP APRON

NTS




2 TYPICAL STREAM BANK AND TOE PROTECTION

NTS

PRELIMINARY
NOT FOR CONSTRUCTION

| | | | |
|---|---|---|---|
| DRAWN BY: CMB, JST | JOB DATE: 2020 | BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY. | |
| APPROVED: MAR | JOB NUMBER: 160473 | | |
| CAD DATE: 8/11/2020 8:08:17 AM | | | |
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| NO. | DATE | BY | REVISION DESCRIPTION |
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NEVADA, IOWA

CIVIL SITEWORK
SECTIONS AND DETAILS

SHEET NO.
C.11

Xrefs: xgt-1-dh01; XCP-PATT